PROSKURIN, V.V., dotsent; KUZNETSOV, L.A., inzh.; ANDRIANOV, A.P., inzh.; GUSEV, I.P., inzh.

Industrial testing of shield ceilings made of logs. Izv.vys. ucheb.zav.; gor.zhur. no.6:3-8 '59.   (MIRA 13:4)

1. Tomskiy ordena Trudovogo Krasnogo Znameni politekhnicheskiy institut imeni S.M.Kirova. Rekomendovana kafedroy razrabotki plastovykh mestorozhdeniy.
          (Mine timbering)

ANDRIANOV, A.P., starshiy prepodavatel'; GUSEV, I.P., dotsent; KUZNETSOV, L.A., starshiy prepodavatel'; PROSKURIN, V.V., dotsent; FEDOROV, N.A., starshiy prepodavatel'

Clay breakthroughs in mining. Izv.vys.ucheb.zav.; gor.zhur. no.3:15-18 '61. (MIRA 15:4)

1. Tomskiy ordena Trudovogo Krasnogo Znameni politekhnicheskiy institut imeni S.M.Kirova; rekomendovana kafedroy razrabotki plastovykh mestorozhdeniy Tomskogo politekhnicheskogo instituta. (Prokop'yevsk region--Coal mines and mining) (Clay)

GUSEV, I.P., kand. tekhn. nauk (Novokuznetsk); ZATLER, I.A., gornyy inzh.;
RUBINSKIY, Yu.M., dotsent

Establishing norms of cyclicity in longwall mines. Ugol' 38 no.11:
24-28 N '63.   (MIRA 17:9)

1. Trest Kirovugol' (for Zatler). 2. Dnepropetrovskiy gornyy
institut (for Rubinskiy).

POLKANOV, M.I.; GUSEV, I.S., aspirant.

Ultraviolet irradiation of cows on the "Krekshino" State Farm.
Zhivotnovodstvo 20 no.1:48 Ja '58.   (MIRA 11:1)

1. Starshiy veterinarnyy vrach sovkhoza "Krekshino" Moskovskoy
oblasti (for Polkanov). 2. Vsesoyuznyy institut zhivotnovodstva
(for Gusev).
            (Ultraviolet rays--Physiological effect)   (Cows)

ALEKSEYEVA, Mariya Vasil'yevna; RYAZANOV, V.A., prof., red.;
        GUSEV, I.S., red.; PETROVA, N.K., tekhn. red.

[Determination of atmospheric pollutions] Opredelenie at-
mosfernykh zagriaznenii. Pod red. V.A.Riazanova. Izd.2.,
perer. i dop. Moskva, Medgiz, 1963. 255 p.   (MIRA 16:5)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for
Ryazanov).
              (AIR—POLLUTION)

KASHIN, A.S.; GUSEV, I.S., starshiy nauchnyy sotrudnik

Production of pregnant mare's serum. Veterinariia 39 no.11:
57-58 N '62.   (MIRA 16:10)

1. Nachal'nik veterinarnogo otdela Ministerstva proizvodstva i
zagotovok sel'skokhozyaystvennykh produktov Udmurtskoy ASSR.

GUSEV, I. T.

"Study of the Rigidity of a Cantilever Horizontal Milling Machine."
Sub 27 Feb 51, Moscow Mechanics Inst

Dissertations presented for science and engineering degrees in
Moscow during 1951.

SO: Sum. No. 480, 9 May 55

GUSEV, I.T.; VEDENSKIY, V.A.

Rigidity norms for circular grinding machines. Standartizatsiia
26 no.9:6-8 S '62.   (MIRA 15:9)
                    (Grinding machines—Standards)

GUSEV, I.T.; VEDENSKIY, V.A.

Rigidity standards for surface-grinding machines. Standartizatsiia
27 no.3:24-30 Mr '63.   (MIRA 16:4)
            (Grinding machines—Standards)

GUSEV, I.V.

Highway construction should be unremittingly controlled by party organizations. Avt.dor. 22 no.12:2-4 D '59.
(MIRA 13:4)

1. Sekretar' Ryazanskogo oblastnogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza.
(Road construction)

GUSEV, I. V.

Heat and mass transfer in a granular bed. III. Determination of mass-transfer coefficients in a moving granular bed. I. V. Gusev, N. I. Nikitina, and M. E. Aerov. Zhur. Tekh. Fiz. 26, 2900-7(1956); cf. C.A. 50 16204f.—The method of vaporizing naphthalene from the surface of granules into a stream of moving gas (C.A. 50, 16204f) was utilized. The exptl. column was 1620 mm. high and 110 mm. in diam. Layers of 4 × 7-mm. ceramic cylinders and naphthalene cylinders of the same size comprised the moving granular bed. It was found that the mass- and heat-transfer coeffs. in the range of Re from 5 to 150 were the same for both the moving and stationary beds. The results indicated that at $Re = 142$ and for velocities of the granular bed ranging from 0 to 60 cm./min., the mass-transfer coeffs. were const., $Nu/Sc^{1/3} = 7.7$.   —Paul Paliyenko

65-12-5/9

AUTHORS: Luk'yanov, P.I., Gusev, I.V. and Nikitina, M.I.

TITLE: On the Movement of a Compact Layer of a Granular Material
           in an Apparatus (O dvizhenii kompaktnogo sloya zernistogo
           materiala v apparate)

PERIODICAL: Khimiya i Tekhnologiya Topliva i Masel, 1957, No.12,
                                        pp. 38-44 (USSR).

ABSTRACT: An experimental investigation of some special features
           of the movement of layers of granular materials in   cylindrical
           and rectangular vessels was carried out. A dividing metallic
           tube, 230 mm in dia., 2 500 mm long, and a rectangular vessel,
           232 mm wide, 1 500 mm long, a spherical and pelletised alumino-
           silicate catalyst, refractory heat transfer medium and activated
           carbon were used for the experiments.
           Experimental results are given in the form of velocity distri-
           bution curves. On the basis of the data obtained on the
           distribution of velocities in a cross-section of a moving
           column and the dependence of this distribution on mean particle
           size the problem of changes in the mean density of a compact
           layer of granular material is discussed.
           There are 3 tables, 4 figures and 7 references, 4 of which
Card1/1   are Slavic.

AVAILABLE: Library of Congress

GUSEV I V
GUSEV, I.V., inzh.; LYSENKO, V.D., inzh.

Excavating machine operators at the building site of the Kuybyshev
Hydroelectric Power Station. Mekh.stroi. 14 no.8:8-11 Ag '57.
(MIRA 10:11)

(Kuybyshev Hydroelectric Power Station)   (Excavating machinery)

LUK'YANOV, P.I.; GUSEV, I.V.; NIKITINA, N.I.

Pressure of compact moving beds of granular material on the
walls of shaft-type apparatus. Khim. i tekh.topl. i masel 4
no.1:63-68 Ja '59.   (MIRA 12:1)
                        (Pressure)

LUK'YANOV, P.I.; GUSEV, I.V.; NIKITINA, N.I.

Limit rate of flow of grandular materials.   Khim.i tekh.topl.i masel
5 no.10:45-49 O '60.   (MIRA 13:10)
                              (Grandular materials)

LUK'YANOV, P.I.; GUSEV, I.V.; NIKITINA, N.I.

Effective utilization of the operating volume of apparatus with the
compact moving bed of granular material. Khim. i tekh. topl. i masel
6 no.11:51-55 N '61.   (MIRA 14:12)

(Catalysts)

GUSEV, I.Ye.; LILOVA, O.M.; MURIN, A.N.; PREOBRAZHENSKIY, B.K.; YAKOVLEV,
V.A.

On the gadolinium 146 isotope. Zhur. eksp. i teor. fiz. 32 no.6:
1585 Je '57.   (MIRA 10:8)

1. Radiyevyy institut Akademii nauk SSSR.
                (Gadolinium--Isotopes)

GUSEY, K.

Electric locomotive performs faultlessly. Mast.ugl.3 no.3:15 Mr '54.
(MLRA 7:4)

1. Mashinist elektrovoza shakhty "Krasnyy Profintern" kombinata
Stalinugol'.   (Mine railroads)

BERSHADSKIY, A.L., doktor tekhnicheskikh nauk; GUSEV, K.F., inzhener.

Increasing the productivity of circular rip saws. Der.prom.5 no.9:
6-8   S '56.   (MLRA 9:10)

1.Belorusskiy lesotekhnicheskiy institut imeni S.M.Kirova.
                (Saws)

VOLAROVICH, M.P.; GALDIN, N.Ye.; GUSEV, K.F.

Geological, mineralogical, and X-ray study of quartz tectonites.
Zap.Vses.min.ob-va   90   no.6:660-672   '61.   (MIRA 15:2)

1. Institut fiziki Zemli AN SSSR, Moskva.
                    (Quartz) (Tectonite)

SHIBARSHIN, A.; GUSEV, K.

Fello workers' courts exchange their work experience. Sov.
profsoiuzy 18 no.7:38 Ap '62.   (MIRA 15:3)

1. Predsedatel' tovarishcheskogo suda avtobusnogo zavoda, g.
Pavlovo na Oke, Gor'kovskoy oblasti (for Shibarshin).
2. Predsedatel' tovarishcheskogo suda rechnogo porta, g.
Khabarovsk (for Gusev).
                        (Labor courts)

Experimental production of fiberboard for use in high-tension oil transformers. H. N. Moiseev. *Rumoshmayn Prom.* 14, No. 3, 43-57(1935).—The usual procedure of manuf. is described. The fiberboard was obtained from uncooked raw calico waste trimmings and from the same material cooked with 0.5% NaOH (on the wt. of air-dry trimmings) at 1 atm. pressure for 3 hrs., followed by washing at 70° for 1 hr. In each case the material was washed (the cooked mass until free from NaOH) and beaten to 45-55° freeness. The cooked product resulted in a fiberboard comparable in every respect to the foreign products. Water sorption of electroinsulating fiberboard. K. F. Gury._*Ibid.* 58-64.—The fiberboard obtained from the uncooked calico waste shows a sharply defined capillary and microcapillary porous structure. With the increasing degree of beating the microcapillarity decreases, but at 65° freeness it is greater than that of the fiberboard obtained from the cooked trimmings of the same freeness. Cooking with NaOH reduces somewhat the microcapillary hygroscopicity of the resulting fiberboard, but at the same time it facilitates the formation of hydrated cellulose in the process of beating. Its microcapillary porosity is practically destroyed by heating, the process of H_2O absorption being effected almost exclusively by the swelling of the amorphous mass formed in the process of beating. The hygroscopicity of the fiberboard obtained from the uncooked trimmings at 45° freeness is greater than that of the board obtained from the cooked stuff of the same degree of freeness; the same is true of the products beaten to 65° freeness, where, besides the swelling of the amorphous mass, a condensation of moisture in the micropores, not yet destroyed by the beating, takes place. The expts. show that there is no relation between the moisture sorption, i. e., the hygroscopicity of a fiberboard and its ability to absorb H_2O on contact with it. Thus, with the greater beating the power of absorption of a fiberboard sharply decreases, while its hygroscopicity increases.

Chas. Blanc

X-ray study of aliphatic acids. K. P. Gusev. Colloid J. (U. S. S. R.) 3, 611-19(1937). — A modified x-ray chamber of the Zeeman-Bohlin type was used to obtain the x-ray patterns of stearic and elaidic acids. The interference lines of the 2 compds., superimposed in the ordinary Debye chamber, are 2 mm. apart in the new chamber. Structural details of the chamber are given. John Fink

A universal x-ray apparatus for structure analysis.
K. P. Gusev. *Colloid J.* (U.S.S.R.) 4, 377 (?)(1938).—
A handy app. is described which can be used for photo-
grams of immobile and rotating crystals, of powders,
foils and fibers. The examples given include a Laue pat-
tern of calcite, a powder diagram of Al, and a texture dia-
gram of rolled Al.   J. J. Bikerman

GUSEV, K. F.

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of
Solid Mineral Fuels, I-12

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62515

Author: Volarovich, M. P., Gusev, K. F.

Institution: None

Title: Roentgenographic Investigation of Peat

Original
Periodical: Tr. Mosk. torfyanogo in-ta, 1953, No II, 97-111

Abstract: Results of roentgenographic investigations of upper sphagnum-
eriophorum peat ranging from absolutely dry to 66% content of water
carried out by means of a specially designed apparatus. Peat con-
taining from 66 to 16% water has a crystalline structure the water
therein is weakly bound by swelling water and adsorption water.
With a water content from 16 to 12% (hydration) a clearly defined
crystalline structure of peat is revealed and a cellulose-type
lattice is observed. On further drying peat loses the hydration
water and is converted to amorphous slate.

Card 1/1

GULYY, K. F., GINZBURG, L. M., and TULAKOVICH, M. I.

"Viscosity, Structure and Adhesive Properties of Glue Solutions"
(vyazkost', struktura i kleyaschiye svoystva kleyevykh rastvorov) from
the book Trudy of the Third All-Union Conferen ce on Colloid Chemistry,
pp. 155-170 Iz. AN SSSR, Moscow, 1956

(Report given at above Conference, Minsk, 21-4 Dec 53)

Authors: **Chair of Physics of Moscow** Peat Insitute and Laboratory of the
Shoe Factory "Paris Commune"

GUSEV, K. F.

X-ray studies of the structure of peat bitumens and waxes. M. F. Velarovich and K. F. Gusev. Colloid J. (U.S.S.R.) 17, 659-61(1955)(English translation).—See C.A. 51, B. M. O.

GUSEV, K. F.

Stamp: Phipico

X-ray studies of the structure of peat bitumens and waxes. M. P. Voларovich and K. F. Gusev (Peat Inst., Moscow). Kolloid. Zhur. 16, 643-6 (1950).—The substances extractable from peat by mists, of EtOH-C₆H₆ give x-ray patterns similar to those of paraffin wax. The parameter a of the elementary cell is 7.65-8.85 A., and the packing coeff. of the mol. chains is 0.618-0.691. The variability of a is attributed to the presence of cyclic hydrocarbons having long side chains.

J. J. Bikerman

GUSEV K. F.

4

Changes in the structure, the degree of dispersity, and the shear yield stress of peats caused by their freezing. M. P. Volarovich, K. F. Gusev, S. N. Markov, and V. E. Tropin (Peat Inst., Moscow). Kolloid. Zhur. 19, 701-6 (1957); cf. C.A. 51, 6980a.—Fresh peat mined from a depth >1 m. showed a diffraction max. at 4.15–4.25 A. on x-ray diffraction patterns; this max. was due to wax and bitumen. In peat frozen and thawed in the lab. or in peat mined from a depth subject to winter freezing this max. was absent, probably because ice broke up the wax crystals and freezing increased the mean radius of peat particles and lowered the specific surface area from, e.g., 4500 to 2200 sq. cm./g. The yield stress θ was lowered by, e.g., 40% by freezing and thawing, but about ¾ of this decrease was recovered during aging at room temp. for 3 yrs.; at 80% moisture, θ was, e.g., 85 before, and 60 g./sq. cm. after freezing.   J. J. Bikerman

VOLAROVICH, M.P.; BONDARENKO, A.T.; GUSEV, K.F.

X-ray investigations of rock samples at high pressures and
temperatures. Trudy Inst. fiz. Zem. no.23:55-59 '62.

(MIRA 16:11)

VOLAROVICH, M.P.; GALDIN, N.Ye.; GUSEV. K.F.

    X-ray study of quartz deformations in tectonites. Trudy Inst.
fiz. Zem. no.23:60-79 '62.   (MIRA 16:11)

GUSEV, K.I.

Some methodological problems and late results of treating tuberculous meningitis in adults [with summary in French]. Zhur.nevr. i psikh. 57 no.10:1291-1295 '57.   (MIRA 10:12)

1. Kafedra nervnykh bolezney (zav. - prof. V.A.Yershov) Stalingradsko-go meditsinskogo instituta i Stalingradskoy oblastnoy klinicheskoy bol'nitsy (glavnyy vrach K.I.Gusev)
         (TUBERCULOSIS, MENINGEAL, therapy,
            methods & results (Rus))

CHERNENKO, M.B.; LUKIN, Yu.B.; GUSEV, K.M.; KUDREVATYKH, L.A.; MAKARENKO,
Ya.I.; SATYUKOV, P.A., red.; STEPANOV, V.P., red.; SELYUK, S.I., red.;
SUTOTSKIY, S.B., red.; ABALKIN, N.A., red.;KOZEV, N.A., red.; AVER-
CHENKO, B.Ye., red.; SOBOLEV, L.S., red.; SIMONOV, K.M., red.; POLE-
VOY, B.N., red.; GALIN, B.A., red.

[Heroes of our times] Geroi nashikh dnei. Moskva, Izd. gazety
"Pravda," 1961. 619 p.   (MIRA 14:11)
             (Labor and laboring classes)

GUSEV, K.P., inzhener.

Problem of the most efficient cross section for double T beams. Strei.prom. 33 no.10:27-29 O '55.   (MLRA 9:1)
(Girders)

AUTHOR: Gusev, K.P., Ingenieur.   176

TITLE: Problems of crack-formation in reinforced concrete
              constructions. (K voprosu o treshchinoustoichivesti
              zhelezobetonnykh elementov).

PERIODICAL: "Beton i Zhelezobeton" (Concrete and Reinforced Concrete),
                        1957, No.3, pp.105-106 (U.S.S.R.)

ABSTRACT: G. D. Tsiskreli's book "Resistance of Tensioned Non-
              Reinforced and Reinforced Concretes" published by
              Gosstroiizdat, 1954 discusses new approaches to the
              problems of crack-formation. Some formulae quoted
              in the book are criticised such as the formula for
              the calculation of tensional stresses in concrete.
              When defining the internal stresses in a section of
              a beam which is in the state of crack formation it is
              necessary to state the height of the compressed zone
              of the concrete as well as the compression stresses in
              the fibres. For this Professor Tsiskreli used two
              conditions: the sum of the internal stresses on the
              horizontal axis = 0; the sum of the internal moments = 0.
              The second condition applies only to external loading
              and cannot be used as a base for the calculations. He
              also assumes that X = height of the compressed zone of
              the concrete. This is not a constant and cannot be used
              in the calculations. The author is correcting the
              formula for the height of the compressed zone and defines

Problems of crack-formation in reinforced concrete   176
constructions. (Cont.)

the latter more exactly by applying the linear law of
the distribution of the deformation throughout the
section. He also gives a modified formula for the
fibre deformation. Gusev claims that his formulae
give accurate results whereas Tsiskreli's formulae
were only accurate within 10 to 15%.   There are
two graphs, one table and two references (to the above
book).

GUSEV, K.P. (Sverdlovsk)

Most efficient form of I-shaped steel elements subjected to
longitudinal bending. Stroi.mekh.i rasch.soor. 2 no.1:
34-38 '60.   (MIRA 13:6)
                    (Girders)

ASTAPOVICH, Z.A., dots., red.; GUSEV, K.V., dots., red.; KACHURINA,
      A.V., red.; MARTYNOVA, F.N., tekhn. red.

[The Soviet working class at the present-day stage] Sovet-
skii rabochii klass na sovremennom etape. Moskva, Izd-vo
"Mysl'," 1964.   187 p.   (MIRA 17:3)

1. Moscow. Akademiya obshchestvennykh nauk.

ASTAPOVICH, Z.A., dotsent, red.; GUSEV, K.V., kand. istorich. nauk, red.;
    ZHDANOV, P.Ya., red.; MURASHEV, A.A., red.; RODZHABLI, D.S., red.;
    NAUMOV, K.M., tekhn. red.

    [Consolidating the alliance between the working class and the
    peasantry during the sharp upsurge of agriculture, 1953-1958]
    Ukrepelenie soiuza rabochego klassa i krest'ianstva v period krutogo
    pod"ema sel'skogo khoziaistva; 1953-1958 gg. Moskva, Izd-vo VPSh i
    AON pri TsK KPSS, 1961. 478 p.   (MIRA 14:7)

    1. Moscow. Akademiya obshchestvennykh nauk.
              (Agricultural policy)

FRANTSEV, Yu.P., rektor, otv. red.; IVAN'KOVICH, N.F., red.; VLADIMIRTSEV,
V.S., red.; STEPANYAN, TS.A., prof., red.; CHANGLI, I.I., starshiy
nauchnyy sotr., kand. ekonom. nauk, red.; YESELEV, N.Kh., red.;
GUSEV, K.V., red.; BONAREV, N., red.; GRINGAUZ, S., red.;
SPITSYNA, A., red.; KUZNETSOVA, A., tekhn. red.

[Standard-bearers of communist labor] Znamenostsy kommunistiche-
skogo truda. Moskva, Moskovskii rabochii, 1961.   322 p.
(MIRA 14:12)

1. Akademiya obshchestvennykh nauk pri TSentral'nom komitete Kom-
munisticheskoy partii Sovetskogo Soyuza i Chlen-korrespondent AN SSSR
(for Frantsev). 2. Zaveduyushchiy sektorom Instituta filosofii
AN SSSR (for Stepanyan). 3. Institut filosofii AN SSSR (for Changli).
(Labor and laboring classes)

ASTAPOVICH, Z.A., dots., red.; GUSEV, K.V., kand. ist. nauk, red.;
    IVANOVA, R.S., red.; KACHURINA, A.V., red.;RATNER, V.I., red.;
    NAUMOV, K.M., tekhn. red.

[Development of the working class in the national Republics of
the U.S.S.R.] Razvitie rabochego klassa v natsional'nykh respubli-
kakh SSSR. Moskva, Izd-vo VPSh i AON pri TsK KPSS, 1962. 309 p.
                                              (MIRA 15:6)

1. Moscow. Akademiya obshchestvennykh nauk.
              (Labor and laboring classes)

KIM, M.P., glav. red.; ARUTYUNYAN, Yu.V., red.; GUSEV, K.V., red.;
DANILOV, V.P., red.p SHARAPOV, G.V., red.; IVANOVA, N.S.,
red.; KACHURINA, A.V., red.; RATNER, V.I., red.; NAUMOV,
K.M., tekhn. red.

[Alliance between the working class and peasantry at the
present-day stage] Soiuz rabochego klassa i krest'ianstva
na sovrememnom etape. Moskva, Izd-vo VPSh i AON, 1962.
358 p.   (MIRA 15:9)

1. Moscow. Akademiya obshchestvennykh nauk.
                (Agricultural policy)

ASTAPOVICH, Z.A., dots., red.; GUSEV, K.V., dots., red.; ZHDANOV,
        P.Ya., red.; MARTYNOVA, M.N., tekhn. red.

[Growth of the creative activity of the working class of
the U.S.S.R. in the period of the large-scale building of
communism] Rost tvorcheskoi aktivnosti rabochego klassa
SSSR v period razvernutogo stroitel'stva kommunizma. Mo-
skva, Izd-vo VPSh i AON pri TsK KPSS, 1963.   437 p.
                                        (MIRA 16:5)

1. Akademiya obshchestvennykh nauk, Moscow.
            (Labor and laboring classes)

RAICHINOV, I.; GUSHEV, L.; NAKOV, T.

Movement of the center of gravity of a heat substance in nonlinear
correlations. Godishnik Min geol inst 8:291-297 '61-'62[publ.'63].

AYZERMAN, Mark Aronovich; GUSEV, Leonid Alekseyevich; ROZONOER,
Lev Il'ich; SMIRNOVA, Irina Mikhaylovna; TAL', Aleksey
Alekseyevich; KOROLEV, N.A., red.; MURASHOVA, N.Ya.
tekhn. red.

[Logic. Automats. Algorithms] Logika. Avtomaty. Algoritmy.
Moskva, Fizmatgiz, 1963. 556 p.   (MIRA 17:3)

GUSEV, L.

USSR/Communications
      Telegraphy

Aug 48

"New Control Periods for Processing Telegrams,"
L. Gusev, 1½ PP

"Vest Svyazi - Pochta" No 8 (101)

Stresses importance of accurate transmission and
timely maintenance of apparatus. Refers to various
sources of inefficiency.

7/49T55

GUSEV, L.

Telegraph

New production norms for telegraph operators, Sov. sviaz. No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, _____May_____ 1953. Unclassified.

KRUGLOVA, Ye.I.; GUSEV, L.A., redaktor; VEYNTRAUB, A.B., tekhnicheskiy
redaktor.

[My work as a telegrapher; an account of a senior telegrapher
in a district communication office] Moia rabota na telegrafe;
rasskaz starshei telegrafistki raionnei kontory sviazi. Moskva,
Gos. izd-vo lit-ry po voprosam sviazi i radio, 1955. 22 p.
            (Telegraphers)   (MLRA 9:5)

BRENINA, Varvara Vasil'yevna; MINAKOVA, Anna Grigor'yevna; YAS'KOVA,
    Nadezhda Tikhonovna; SVERDLOVA,I.S., redaktor; GUSEV,L.A.,
    redaktor; KHELEMSKAYA,L.M., tekhnicheskiy redaktor

[Our work practice with Baudot apparatus] Nash opyt raboty na
apparate Bodo. Moskva, Gos.izd-vo lit-ry po voprosam sviasi i
radio, 1955. 30 p.   (MLRA 9:3)
                    (Telegraph)

AREF'YEVA, Vera Mikhaylovna; QUSAR, L.A., otvetstvennyy redaktor;
    BERESLAVSKAYA, L.Sh., tekhnicheskiy redaktor

[Telegraph dispatcher in the city communication service] Ekspeditor
telegrafa gorodskogo otdeleniia sviazi. Moskva, Gos. izd-vo lit-ry
po voprosam sviazi i radio, 1956. 35 p.   (MLRA 10:2)
        (Messengers)   (Telegraph)

GUSEV, L.A.

BUZGAN, I.A.; GUSEV, L.A., inzhener.

Improve the delivery of telegrams to addressees. Vest.sviazi 16 no.11:27-28 N'56.
(MIRA 10:1)

1. Starshiy inzhener Upravleniya mezhdugorodnoy telegrafno-telefonnoy svyazi Ministerstva svyazi RSFSR.(for Buzgan) 2.Glavnoye upravleniye mezhdugorodnoy telegrafno-telefonnoy svyazi Ministerstva svyazi SSSR. (for Gusev).

(Telegraph)

SOV/103-19-10-3/12

AUTHOR: Gusev, L. A. (Moscow)

TITLE: Determination of Periodic Behavior in Automatic Control
Systems Having Non-Linear Element With a Piecewise Linear
Characteristic (Opredeleniye periodicheskikh rezhimov v
sistemakh avtomaticheskogo regulirovaniya, soderzhashchikh
nelineynyy element s kusochno-lineynoy kharakteristikoy)

PERIODICAL: Avtomatika i telmekhanika, 1958, Vol 19, Nr 10, pp 931-944
(USSR)

ABSTRACT: This is a presentation generalizing the method of finding
periodic solutions for systems of a general nature, that
is to say for systems with an arbitrary piecewise linear
characteristic (the number of sections with different gra-
dients combining to form the curve being arbitrary). These
periodic solutions take the form of Fourier-(Fur'ye) series
(without neglecting the higher harmonics). Contrary to the
procedure adopted in the paper cited by reference 1 no use
is made of the affine transformation of the initial curve
into a curve consisting of sections parallel with the coordi-
nate axes. This leads to a considerable simplification of
the equations which are used for the determination of the

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Determination of Periodic Behavior in Automatic Control Systems With a
Non-Linear Element Having Piecewise Linear Characteristic

periods of motions of the plotting point in the individual
sections of the curve. If a computer is employed it is con-
venient to use the algorithm advanced in this paper in case
the number of linear sections of the curve is small and the
order of the linear sections is high. Problems of stability
of periodic operation schedules are not covered in this study.
They are presented in reference 2. The problem posed in this
paper consists of solving the system h of transcendent equa-
tions (equations for the periods) which determine the periods
of motion in each section of the non-linear characteristic
in the range of the period. Some remarks are made concerning
calculation technique and some problems concerning the use of
computers are studied. Finally it is demonstrated that it
is possible to find periodic solutions for a more extended
class of systems of differential equations with the help of
the method advanced in this paper. There are 6 references,
which are Soviet.

SUBMITTED: January 9, 1958
Card 2/3

9.3200

78165
SOV/103-21-3-11/21

AUTHORS: Ayzerman, M. A., Gusev, L. A., Rosonoer, L. I.,
              Smirnova, I. M., Tal', A. A. (Moscow)

TITLE: Finite Automatons. II.

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol 21, Nr 3, pp 359-
   368 (USSR)

ABSTRACT: The paper is a continuation of the article published
              in "Avtomatika i telemekhanika," Vol 21, Nr 2. In
              Part II of this article the following problem is
              discussed: an automaton A', operating at a selected
              pace of time, T' is to be formed out of automatons A,
              operating at a different pace of time T. In referring
              to Part I of the paper, it is shown that this may be
              obtained by two methods. According to the first method,
              $\mathcal{L}$ delay elements, operating at pace T, are connected
              in series as shown in Fig. 1,

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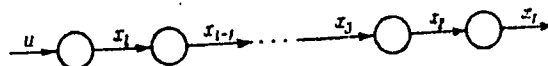
forming a delay line described by equations

$$x_1(p) = x_2(p-1),$$
$$x_2(p) = x_3(p-1),$$
$$\cdots \cdots \cdots$$
$$x_l(p) = u(p-1).$$

The number ℓ is a positive integer. It is assumed that pace T is represented on the time axis by equal intervals τ and pace T' by equal intervals $\ell \tau$.

When an automaton is designed by the aggregation method in such a manner that the delay element with pace T is everywhere replaced by the above described lines, then the resulting automaton still operates at pace T. However, by registering the input and the delay line output symbols of this automaton after only $\ell \tau$ sec,

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the automaton with the desired pace may be obtained. The second method is applied to an automaton A, which at the moment t_0 assumes an input state ρ_0, the latter remaining constant until t_1. During time $t_0 \leqslant t \leqslant t_1$ the automaton operates as an autonomic automaton (see part I). At $t = t_1$ the input state ρ_0 changes to ρ_1 and remains constant until $t = t_2$, thus defining a new autonomic automaton. At $t = t_2$ the state ρ_1 changes to ρ_2, etc. Under the assumption that the input state ρ and the states $K(t)$ (see part I) are registered only at times t_0, t_1, t_2,..., t_i,..., an automaton A' is obtained and is based on the equilibrium states of autonomic automatons. The pace T' of A' is defined by t_0, t_2, etc., and does not depend on the pace of the automaton A. It is shown that the above two methods may be applied to neurons and to

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relay-contact systems. By neuron is meant an
element with a finite number of inputs and one
output only. The input and output states are desig-
nated by symbols from the "alphabet" $\{0,1\}$. The
output symbol is singularly determined by the input
symbols which existed $\mathcal{T}$ seconds ago. A neuron may
be considered as a finite automaton with only two
possible states. Neurons may be combined into
networks without the use of symbol converters (see
Part I). Relay systems may also be considered as
finite automatons of the "neuron network" type,
the time delay of $\mathcal{T}$ sec being determined by the
duration of the relay operation. Concluding remarks
are made on the possibility of considering a system
designed as to belong to the class of finite automatons.
The application of the theory of finite automatons is
terminated as soon as equations of type (6), Part I,
are written. These equations are then used as a
basis for engineering design. There are 5 figures;
and 1 table.

SUBMITTED: November 26, 1959   Card 4/4

86115

S/103/60/021/012/002/007
BC12/B064

16.9500 (1024,1031, 1132)

AUTHORS: Ayzerman, M. A., Gusev, L. A., Rozonoer, L. I.,
Smirnova, I. M., Tal', A. A. (Moscow)

TITLE: Methods of Working out a Finite Automaton the Time Pace of
Which Is Dependent Upon the Variation of the Input State

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol. 21, No. 12,
pp. 1576-1594

TEXT: The papers of Refs. 1, 2 define such a dynamic system as a finite
automaton the behavior of which is determined at the given instants
(rhythms) 1, 2, ..., p by equation (1): $\kappa(p) = F[\kappa(p-1), \rho(p-1)]$, where
$\kappa(p)$ and $\rho(p)$ are variables and $F(\kappa, \rho)$ an unambiguous function. The
variable λ was assigned to the output of the automaton, and determined
from formula (2): $\lambda(p) = \Phi[\kappa(p)]$ a new variable μ is introduced into
equation (1) and formula (3) is obtained: $\kappa(p) = \mu(p-1)$, $\mu(p) =$
$= F[\kappa(p), \rho(p)]$. Instead of (2), the more general formula (5) is written
down: $\lambda(p) = \Psi[\kappa(p), \rho(p)]$. The system expressed by equations (3) and (5)
is called a sequential machine. In so far as (2) is a special case of (5).

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86215

Methods of Working out a Finite Automaton   S/103/60/021/012/002/007
the Time Pace of Which Is Dependent Upon the   B012/B064
Variation of the Input State

the "sequential machine" comprises the notion of the "finite automaton".
On the other hand there is a theorem which shows that a sequential machine
is "no more efficient" than a finite automaton with an output converter
(Ref. 4). This theorem reads:Every sequential machine M can be compared
to a finite automaton A with an output transformer in such a way that for
any state of M, a corresponding state of A will exist, where in the case
of an arbitrary input sequence the output sequence of A in all cases of
$p \geqslant 1$ represents the output sequence of M by a delay by one rhythm, and
vice versa.- This paper deals with sequential machines only, which realize
the finite automaton, formula (6). (6) is obtained from (3) and (5) by
eliminating μ and κ. It reads $\lambda(p) = F_1[\lambda(p-1), \varphi(p)]$. The working cycles

1, 2, ..., p are clearly determined by the instants at which the input
state is changed. It is assumed that the basic table of the (6) automaton
is given. Three methods of realizing this basic table by means of the
sequential machine are studied. The methods differ by the amount of
information reaching the input of the automaton. The first method is that
of D. D. Huffman (Ref. 5). The second method provides for the feed of an

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Methods of Working out a Finite Automaton   S/103/60/021/012/002/007
the Time Pace of Which Is Dependent Upon the   B012/B064
Variation of the Input State

additional information on the instants at which the input state has
changed. In the third method, the automaton obtains the information through
the input state at the respective moment and at some preceding moments. It
is shown that this method warrants the most economic automaton. In this
case it is possible not only to reduce essentially the number of neces-
sary states of the automaton, but also to reduce as much as possible.
There are 7 figures, 19 tables, and 7 references: 6 Soviet.

SUBMITTED: May 24, 1960

Card 3/3

`7.3200`

AUTHORS: Ayzerman, M. A., Gusev, L. A., Rozonoer, L. I.,
             Smirnova, I. M., Tal', A. A.

TITLE: Finite Automatons. I

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol 22, Nr 2, pp
             224-236 (USSR)

`77828`
`SOV/103-21-2-8/14`

ABSTRACT: The authors give their point of view on the theory of
             finite automatons. A finite automaton is defined
             as a dynamical system which at certain discrete
             moments satisfies the following conditions: (1)
             The state of the system is selected from a finite
             number k of possible states (2) The state of the
             input to the system is selected from a finite number
             r of possible input states. (3) The state of the system
             at any considered moment is defined singularly by the
             state of the system and the state of the input at the
             preceding moment. The following designations are introduced:
             (a) 1, 2, ..., k are symbols of k possible systems

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of states. Their totality $|\chi|$ is called a state
alphabet; (b) ρ_1, ρ_2,..., ρ_2 are symbols of the
r possible input states. Their totality $|\rho|$ is called
an input alphabet. According to the condition (3)
the operation of a finite automaton is described
by the expression

$$\kappa(p) = F[\kappa(p-1), \rho(p-1)],$$

(1)

where F is a function with a single value. The
abstraction introduced by the concept of "finite
automaton" singles out a class of systems in which
the processes are described not by differential
equations but by specific equations of type (1).
A finite automaton may have $\ell (\ell \leqslant k)$ possible
output states designated as λ_1, λ_2,...,λ_ℓ or,
in their totality designated as an output alphabet
$|\lambda|$. In case of an automaton with an output,

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Eq. (1) must be supplemented by the "momentary" relationship given as

$$\lambda(p) \quad \Phi[\nu'(p)].$$ (2)

Equations (1) may be represented by Table 1.

Table 1

This table is called the basic table of finite automaton and may be set up in the following manner: a pair of symbols selected from alphabets $\{p\}$ and $\{\lambda\}$ determines one case in the table. Assuming the symbol pair as

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P (p-1) and V (p-1), and using Eq. (1), the value
of K (p) may be determined and written for the above
case. Equation (2) also d___nes a table

Table 2

For a selected sequence of input symbols ρ, Table 3

Table .

characterizes a sequence of symbols V , in accordance
with Eq. (1). In this band there is a corresponding

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P and $\mathcal{K}$ for each moment t. The band is called a state band. Three symbols, $\mathcal{K}(p-1)$, $P(p-1)$, and $\mathcal{K}(p)$, defined by Eq. (1) are separated by a heavy line on Table 3. They are called a triad. When the system is defined by Eq. (1) and Eq. (2), then an output band, as represented by Table 4, must also be considered.

TABLE 4

t	1	2	3	4	5	$\cdots$
p	p_1	p_3	p_5	p_r	p_2	$\cdots$
λ	λ_2	λ_2	λ_3	λ_1	λ_2	$\cdots$

When the input state does not vary with time the automaton is called autonomic. Equation (1) for this case has the form

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$$\varkappa(p) = F[\varkappa(p-1), \varphi(0)].$$

(3)

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where $\rho(0)$ may be considered a parameter. The
operation of an autonomic automaton may be represented
graphically by k points corresponding to system states
and represented by arrows which show the direction
of transition from one point to the other, in accordance
with Eq. (3). Since a nonautonomic automaton has r
input states, it can be represented by r various autonomic
automatons, under the assumption that the r input states
do not vary. The totality of r graphs representing the
above autonomic automatons characterizes the non-
autonomic automaton. Figure 1 shows an example of a
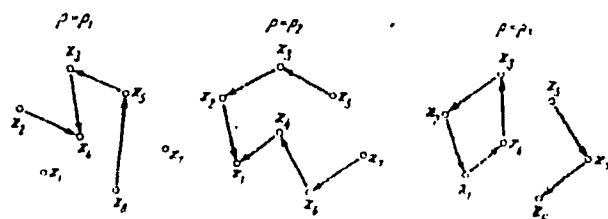totality of 3 graphs

Fig. 1.

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Table 5 corresponds to the automaton characterised by Fig.1.

TABLE 5

	x_1	x_2	x_3	x_4	x_5	x_6	x_7
p_1	x_1	x_4	x_2	x_6	x_3	x_2	x_7
p_2	x_1	x_1	x_2	x_1	x_3	x_4	x_6
p_3	x_4	x_1	x_2	x_3	x_7	x_4	x_6

The introduction of the concept of "finite automaton"
poses a series of problems. The bands represented by
Tables 3 and 4 are assumed to be infinite and cannot
be selected. Selected are the algorithms which
determine the symbol for any case of an infinite band.
For the band represented by Table 3, the algorithms
corresponding to the upper (ρ) and to the lower
(χ) line are designated as A_ρ and A_χ, respectively.

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Similarly, A_ρ and A_λ are the algorithms of the output band, represented by Table 4. For a given automaton, the analysis, i.e., the determination of A_χ or A_λ in accordance with A_ρ, does not represent any scientific problem. On the contrary, the synthesis of an automaton, i.e., finding the Eq. (1) from the given band algorithms poses several problems. When A_χ and A_ρ are known, the first problem consists in finding an algorithm proving that A_ρ and A_χ are not contradictory, i.e., there are no contradictory triads in the band. Two triads are contradictory when their symbols $\rho(p-1)$ and $\chi(p-1)$ are the same, but when symbols $\chi(p)$ are different. When A_ρ and A_χ are not contradictory, an algorithm must be found determining all various triads of the band. Synthesis corresponding to the output band is a more complex problem. Here A_ρ

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and A_λ are known and the number of states k and function

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Φ in Eq. (2) have to be determined. It is stated that in case of finite state and output bands, the synthesis problem becomes less complex. To discuss the synthesis problem the following concepts are introduced: (1) The Symbol Converter. This is an abstract arrangement performing the transformation defined by Eq. (2), (2) The Equivalent Automatons. On Fig. 2, automaton
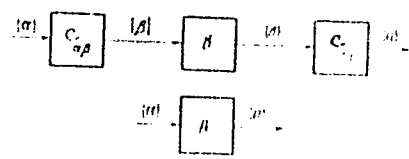

Fig. 2.

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A is operating according to the input alphabet $\{a\}$ and the state alphabet $\{a\}$. Automaton B has the input alphabet $\{\beta\}$ and the state alphabet $\{b\}$. It is assumed that two symbol converters $C_{a\beta}$ and C_{ba} may be selected

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In such a manner that for any sequence of input symbols from $\{a\}$, the sequence of symbols from the alphabet $\{a\}$, at the output of the combined system $C_{\alpha\beta}$, B, C_{ba}, will be the same as the sequence of state symbols in A. In this case it is said that B is an image of A and may be written as.

$$A \; [B \;\text{or}\; B \;] A.$$

When at the same time,

$$A \; [B \;\text{and}\; A \;] B,$$

then A and B are equivalent automatons. (3) The Abstract Structure of a Finite Automaton. An arrangement of s input lines $u_1, \ldots, u_s$ and of n, generalized coordinates $x_1, \ldots, x_n$ is considered. At moments $0, 1, 2, 3, \ldots, p$, each input and each coordinate has

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only one of a finite number of values. The operation of
such an arrangement is described by

$$r_i(p) = f_i[r_i(p-1),\ldots,r_n(p-1); u_1(p-1),\ldots,u_n(p-1)] (i = 1,\ldots,n) (6)$$

Equation (6) is another form of Eq. (1). To one
equation of type (1) correspond various equations of
the type (6). The transition from Eq. (1) to the
equivalent Eqs. (6) is called a selection of structure
of a finite automaton, and Eq. (6) themselves are
called an abstract structure (AS) of a finite automaton.
(4) The Net. This is a totality of AS, interconnected
by means of symbol converters. Based on the above
concepts, the authors arrive at the conclusion that a
finite automaton may be designed by combining into a net
other finite automatons. The design of a multitude
of automatons from a small number of initial automaton-
"elements" is called abstract aggregation. A set of
AS and converters is called complete, when by means of
this set the networks designed are images of any selected

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automaton. A technically very important complete
set is set-up of the following elements: (a) a binary
delay element, described by the equation $x(p) = z(p-1)$,
where x and z are selected from an alphabet comprising
only two symbols, 0 and 1, for example; (b) a set of
logic elements enabling performance of any logical
function. It is shown that from the above set a net
may be designed to be an image of any finite automaton.
(To be continued). There are 4 figures; 6 tables; and
25 references 17 Soviet, 1 French, 7 U.S. The 5 most
recent U.S. references are: Burks, A. W., Wright, J. B.,
Theory of Logical Nets, Proc. IRE, No. 4 (1953);
Huffman, D. A., The Synthesis of Sequental Switching
Circuits, Journ. Francl Inst., Vol 257, Nr 3, 4 (1954);
Burks, A. W., Wang, H., The Logic of Automata., Journ.
Assoc. Comp. Mach., Vol 4, Nr 2, 3 (1957); Davis, M. D.,
Computability and Unsolvability, McGraw Hill, New York
(1957); Copi, I. M., Elgot, C., Wright, J. B., Realisa-
tion of Events by Logical Nets, Journ. Assoc., Comp.
Mach., 5, p 181, Nr 2 (1958).

SUBMITTED: June 10, 1959

Card 12/12

26772
S/103/61/022/006/007/014
D229/D304

/6.4000(1121, 1132, 1395)

AUTHORS: Ayzerman, M.A., Gusev, L.A., Rozonoer, L.I.,
             Smirnova, I.M., and Tal', A.A. (Moscow)

TITLE: Algorithmic non-solvability of the problem of
             recognizing the possibility of the representation
             of recursive events by finite automatic devices

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 6, 1961,
             748 - 755

TEXT: The authors introduce the concept of recursive events based
on that of recursive functions, and consider the representation of
events in automatic devices. The first theorem to be proved is
that of non-solvability, as stated in the title. It has been for-
mulated without proof in a paper by B.A. Trakhtenbrot (Ref. 7:
Sintez logicheskikh setey, operatory kotorykh opisany sredstvami
ischisleniya odnomestnykh predikatov, Dokl., AN SSSR, vol. 68, no.
4, 1958) and the authors call it Trakhtenbrot's Theorem. To prove

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it, a more restricted problem is formulated: A recursive function $\varphi(t)$ is supposed to be given which is fixed in the set of whole numbers and takes values belonging to a finite set $\{0, 1, \ldots r-1\}$. An automatic device A with input alphabet $\{\rho_0, \ldots \rho_{r-1}\}$ is considered. Of all possible input sequences the following ones are selected:

$$\rho_{\varphi(0)}, \qquad \rho_{\varphi(0)} \, \rho_{\varphi(1)}, \qquad \rho_{\varphi(0)} \, \rho_{\varphi(1)} \, \rho_{\varphi(2)}, \text{ etc.}$$

$\rho_{\varphi(i)}$ being a symbol from $\{\rho\}$ the index of which coincides with the value of $\varphi(t)$ for $t = i$. An event S^{φ} consists in the appearance of some one of the sequences selected above, at the input of A at a given moment. A is said to represent the function $\varphi(t)$ if it represents the event S^{φ}. The second Theorem is: The function $\varphi(t)$ can be represented by a finite automatic device if and only if $\varphi(t)$ is periodical above a certain value of t, i.e. there exist two numbers τ and T such that for any $t \geqslant \tau$ $\varphi(t + T) = \varphi(t)$. Proof of the theorem is given. The second theorem reduces the problem of

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recognizing representability of recursive functions to that of re-
cognizing periodicity of the function specified as above. Since
the latter is not algorithmically solvable for the case of the
function taking two values, an extension being said to be obvious,
the proof of the second Theorem proves also the first. There are 8
references: 6 Soviet-bloc and 2 non-Soviet-bloc. The references to
the English-language publications read as follows: I.M. Copi, C.
Elcot, J.V. Wright, Realization of events by logical nets, Journal
Assoc. Comp. Mach. vol. 5, no. 2, 1958; M.D. Davis, Computability
and Unsolvability, McGraw Hill, N.Y., 1957.

SUBMITTED: January 4, 1961

Card 3/3

GUSEV, L. A.

"Equivalency and minimization of sequential machines"

report submitted for the Intl. Symposium on Relay Systems and Finite Automata Theory
(IFAC), Moscow, 24 Sep-2 Oct 1962.

AYZERMAN, M. A. (Moskva); GUSEV, L. A. (Moskva); ROZONOER, L. I. (Mos'va);
SMIRNOVA, I. M. (Moskva); TAL', A. A. (Moskva)

Conversion of the time pace of sequential machines and synthesis
of switching circuits. Avtom. i telem. 23 no.11:1465-1491
N '62.
(MIRA 15:10)

(Electric relays)   (Switching theory)
(Automatic control)

L 44738-65   EWP(k)/EWP(h)/EWT(d)/EWP(1)/EWP(v)   Pf-4/Pg-4/Pk-4/P1-4/
Po-4/Pq-4/Pae-2   IJP(c)   BC

ACCESSION NR: AP5008524   S/0103/65/026/003/0510/0520

AUTHOR: Gusev, L. A. (Moscow); Tal', A. A. (Moscow)

TITLE: Setting up algorithms for the abstract synthesis of sequential machines
in a questionnaire language

SOURCE: Avtomatika i telemekhanika, v. 26, no. 3, 1965, 510-520

TOPIC TAGS: sequential machine, questionnaire language, automatic control,
automatic control system, automatic control design, automatic control theory

ABSTRACT: Possibility is considered of realization of an abstract synthesis of
sequential machines on the basis of replies to a finite number of questions of
these two types: (1) Whether or not the "tape" is admissible; (2) Whether or not
the "tree" is admissible. The "tape" is a sequence of symbols taken from the
alphabet {s} of external situations; the "tree" is a branching combination of
tapes. The method used is an outgrowth of D. A. Huffman's method (J. Franklin
Inst., v. 257, nos. 3-4, 1954). It is proven that the abstract synthesis:
(1) Not always can be realized on the basis of replies to the question regarding
finite-length tapes; (2) Can always be realized if the questions cover finite-
height trees; a corresponding "basic" algorithm of the questionnaire language is

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L 44738-65
ACCESSION NR: AP5008324

developed. Orig. art. has: 2 figures, 1 formula, and 4 tables.

ASSOCIATION: none

SUBMITTED: 07Sep64   ENCL: 00   SUB CODE: DP, IE

NO REF SOV: 004   OTHER: 005

Card 2/2

GUSEV, L. A., YERIM, A. I.

Cnions

Onion seed culture on collective farms. Sad i og. No. 5, 1952.

9. **Monthly** **List** **of** **Russian** **Accessions**, Library of Congress, July_____195$\cancel{5}$. Unclassified.

GUSEV, L. A., YERINO, R. L.

Clover

Five centners of red clover seed from one hectare.
Sov. agron. 10 no. 5:32-34 My '52

Monthly List of Russian Accessions, Library of Congress, July 1952.   Unclassified.

GUSEV, L. A.; YERINA, R. I.

Beets and Beet Sugar

13.9 centners of beet seeds per hectare.
Sel. i sem., 19, No. 9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

GULYEV, L. K.: "Traumatic breaks of the wrist bone and their anatom-
ical-roentgenological aspects." Samarkand State Medical Inst
imeni Academician I. P. Pavlov. Samarkand, 195 .
(Dissertation for the Degree of Candidate in Medical Sciences).

SO: Knizhnaya letopis', No 23, 1956

KARLENKO, P.N., prof.; GUSEV, L.K., kand.med.nauk; YENIKEYEVA, M.A., kand.
med.nauk; OMIROV, R.Yu., aspirant; YUSUPOV, N.A.; ordinator;
AZAMATOV, N.A., ordinator; TAYTS, N.Yu.; ASHKIYANTS, N.G., ordinator;
BORUKHOV, S.A., ordinator.

Some results of a study of goiter in Samarkand Province of the Uzbek
S.S.R. Med. zhur. Uzb. no.5:17-20 My '61.   (MIRA 14:6)

1. Iz kliniki obshchey khirurgii Samarkandskogo gosudarstvennogo
meditsinskogo instituta imeni I.P.Pavlova.
          (SAMARKAND PROVINCE—GOITER)

GUSEV, L.K., kand. med. nauk; TAYRE, N.Yu., ordinator

Foreign bodies in the esophagus. Nauch. trudy SamMI
22:18-22 '63.
(MIRA 17:9)

1. Iz kliniki obshchey khirurgii Samarkandskogo meditsinskogo
instituta.

L 14052-65   EWG(j)/EWT(m)   AMD/BSD/AS(mp)-2

ACCESSION NR: AR4045863   S/0299/64/000/014/M023/M023

SOURCE: Ref. zh. Biologiya. Svodnyy tom, Abs. 14M156

AUTHOR: Aripov, U. A.; Gusev, L. K.; Atayants, V. A.

TITLE: Characteristics of "accretion" of bone homotransplants in irradiated animals

CITED SOURCE: Sb. 3 Vses. konferentsiya po peresadke tkaney i organov, 1963. Yerevan, 1963, 252-253

TOPIC TAGS: accretion, bone, homotransplantation, transplantation, irradiation, rabbits, radiation sickness

TRANSLATION: Four experimental series were staged on 20 rabbits. In the first series a bone homotransplant was transplanted from a nonirradiated donor to a nonirradiated recipient; in the second series a bone homotransplant was transplanted from a nonirradiated donor to an irradiated recipient; in the third series a bone homotransplant was transplanted from an irradiated donor to a nonirradiated recipient; in the fourth series a bone homotransplant was transplanted

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from an irradiated donor to an irradiated recipient. Radiation dose
was 500 r. A defect in one quarter of the irradiated bone length
was produced by operation. In the first series after 2 weeks tender
homogeneous periosteal stratification appeared in the transplant area.
After one month the bone homotransplant had distinct contours, and
after $2\frac{1}{2}$ to 3 mos the bone homotransplant could not be identified by
X-ray. Histological examination disclosed restoration of the bone
marrow canal and spongy structure of the cortical lamina of the bone
homotransplant. In the second series, accretion of the homotransplant
did not take place and the bone homotransplant resorption started by
the end of the second week. In the third series, the periosteal
reaction appeared late but after 3 mos the roentgenological and
histological picture was the same as in the first series. In the
fourth series, the periosteal reaction was absent up to the 34th day
and all rabbits died of radiation sickness.

SUB CODE: LS   ENCL: 00

Card 2/2

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10-61 sup, 212)

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     tekhn. red.

     [Firing from a tank; a manual for the crew] Strel'ba iz tanka;
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     1961. 109 p.
                                                    (MIRA 15:2)
          (Shooting, Military) (Tanks (Military science))

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KOLLEROV, L.K.; GUSEV,L.M., kandidat tekhnicheskikh nauk, retsenzent;
GRIBANOV, V.I., kandidat tekhnicheskikh nauk, retsenzent; GRIN,
A.B., kandidat tekhnicheskikh nauk, redaktor; POL'SKAYA, R.G.,
tekhnicheskiy redaktor

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